

## ANTITUBERCULOSIS WORK IN THE PITTSBURGH PUBLIC SCHOOLS\*

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THE value of public education in antituberculosis work can hardly be over-estimated since it is to an enlightened public we must look for the prevention and control of this dread malady. Much has been said and written on the best methods of this sort of education and the systematic campaigns carried on in some of our smaller cities, such as Yonkers, as well as in New York, Boston and Baltimore, are surely examples of the best methods and are most encouraging in their results.

While the educational work in Pittsburgh has never reached the degree of organization found in many other cities, it does have one feature which is absolutely unique and can be recommended as a very satisfactory means of education; that is, an attempt to give systematic instruction in the cause and prevention of tuberculosis to school children.

In Dr. Trudeau's address at the first national convention he advocates teaching the public school children the main facts relating to the transmission of tuberculosis, and hygienic measures of prevention. If many tuberculosis infections have their inception in childhood and remain latent until some period of lowered vitality, we can hardly teach children at too early an age hygienic measures of prevention.

Surely, if every school child in our city could be taught the simplest facts of preventive medicine, and urged to tell his parents why it is best to boil the drinking water, why certified milk, though more expensive, is cheaper in the long run, and why we have anti-spitting and disinfection laws, the public health would be benefited in proportion to the enthusiasm of the teaching. For too many years effective legislation with regard to municipal hygiene has been thwarted because the people ask not "how many lives will this law save?" but "how much money will it cost?" Teach the children that a pure water supply is cheap at any cost; that effective tenement house inspection will lower the death-rate; that municipal parks where the people of the crowded districts may breathe fresh air, are cheaper than municipal hospitals to care for the sick, and you have done much to teach the future lawmakers of the city that health is of more importance than money.

It is a difficult undertaking for an organization with absolutely no

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connection with the city's school system, and the Tuberculosis League of Pittsburgh has none, to introduce into the schools talks on a disease, and particularly such an objectionable disease as tuberculosis. In the first place it seems to be generally thought that a greater knowledge of this malady will create a greater fear of contracting it, a fear almost amounting to a phobia. What little reason there is for this fear is overcome by omitting all discussion of symptoms, and symptoms are in no way an essential topic in a talk on the cause and prevention of tuberculosis. Another difficulty encountered is the fact that any talk on the prevention of this disease must deal with the proper disposal of sputum, and this subject must be approached with the greatest care or the children become disgusted. Every school teacher knows that too vigorous denunciation of a habit often encourages it. To say to a child "don't spit on the sidewalk," and to be continually reiterating this command, is often the surest way of making him break it.

Even if these obstacles of presenting the subject were overcome there remained the greater one,—that of obtaining permission to enter the schools. Pittsburgh is divided into forty-three school districts and each district is governed by its own school board. There is a Central Board of Education, but it has little power over the individual districts. The Tuberculosis Hospital is not widely known in educational circles; the very idea of talking about tuberculosis in the school room is regarded with suspicion if not with disfavor by many of the boards; the idea that the children are already overburdened with subjects and can ill afford the time to listen to a health talk, has to be controverted; and many boards have to be met and convinced that we are not propagating a money-making scheme; that we are not advertising a patent medicine, and that we will not "waste" more than twenty or thirty minutes of the children's time. The boards, when they fully understand our project, however, are uniformly kind and considerate and help to further the work in many ways.

Our work in the public schools is divided into three parts: lectures, literature and exhibitions.

We have felt from the first that it could have little lasting value without the coöperation of the teachers. We may teach the child the value of fresh air and sunshine, may tell him of dust and its dangers, but unless the teacher emphatically sets the stamp of her approval on what has been said, it will do no good. With this idea in mind we have tried to meet all the teachers of a district at a teacher's meeting before giving any lectures in the school. It has seemed better to meet the teachers district by district rather than in the larger institute or grade

meetings, because where there are only fifteen or twenty present a general discussion often follows the lecture and there is much more freedom than in the larger assemblies. Then, too, members of the school board often attend the meeting and discuss our work and question of school hygiene.

We tell the teachers just what we are trying to do, go over the ground we expect to cover in our school lecture, and try to emphasize the value of fresh air and sunshine and the fact that a well-ventilated school room is the best object lesson of this value. We speak of the best ways to sweep and dust and the absolute necessity of damp sweeping and dusting in the school room. We mention the fact that the public school teacher often moulds the character of her pupil more than any other factor in his life, and that she can do much to teach the love of municipal cleanliness and the laws which make for it. The teachers are, as a rule, alive to the fact that a more general knowledge of preventive measures will do much to stamp out tuberculosis.

After meeting the teachers we talk to the children of the district. In the high schools the lectures were given at the General Assemblies where the number of pupils ranged from three hundred to one thousand, but aside from them, it seemed best to speak to the children in their school rooms. There is less confusion and greater freedom if each child is at his own desk, and the decided break in the day's routine tends to make the child remember what is said.

The subject matter of the lectures remains practically the same in all grades and they are given to all pupils above the third grade, but the manner of presenting the lectures differs in different grades and localities. One may speak quite plainly to a group of children from a mill district of the way infection may be spread by a careless consumptive, but in some of the residence districts the subject has to be approached more carefully. To introduce the matter too abruptly is often to antagonize the pupils and we have found that to designate the lecture "Preventive Medicine" rather than "Tuberculosis" gains closer attention.

An outline of a typical talk would be something as follows:

#### PREVENTIVE MEDICINE:

*Examples.*—Vaccination to prevent small-pox; boiling impure water to prevent typhoid.

#### TUBERCULOSIS:

- A. Cause, tubercle bacillus.
  1. Where found.
  2. Portals of entry.
  3. Predisposing factors.

B. . . . .  
C. . . . .  
D. . . . .  
E. . . . .  
F. . . . .  
G. . . . .  
H. . . . .  
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O. . . . .  
P. . . . .  
Q. . . . .  
R. . . . .  
S. . . . .  
T. . . . .  
U. . . . .  
V. . . . .  
W. . . . .  
X. . . . .  
Y. . . . .  
Z. . . . .

**B. Prevention.**

## Healthy bodies.

1. A simple rule of hygiene.
2. Necessity of a pure milk supply.
3. Disposal of sputum.
4. Enforcement of anti-spitting laws.
5. Disinfection of homes.
6. Best ways of sweeping and dusting.
7. Laws which make for a healthier city.
8. Dangers in the use of patent medicines.
9. Phthisiophobia—the harm it does.

In teaching we try to build on what the child already knows, and the value of the talks is greatly increased by the teachers keeping the children interested in the subject and by giving them the card-board folders with instructions to read them carefully and pass them on, and by urging them to repeat at home what they have learned.

The literature consists of two pamphlets, one the card-board folder published by the Tuberculosis Committee of the Charity Organization Society of New York, entitled "Don't give Consumption to Others, Don't let Others give Consumption to You." This has a list of the free dispensaries for treatment of tuberculosis in the city and many patients have been induced to enter dispensary classes through it. The other pamphlet is especially for teachers and is on the cause, prevention and cure of tuberculosis. It has on its inner cover a partial list of the sanatoria in Pennsylvania.

We have five travelling exhibits distributed among the schools. Each one consists of a collapsible wooden frame and easel, canvas to cover the frame, and two wooden boxes each holding twenty pictures. The pictures were chosen with the idea of showing, as graphically as possible, cause, prevention and cure of tuberculosis. Since each exhibit is changed weekly to another school the expense of having an expressman do the carrying would prove great and the one described obviates this. The frame and easel are taken apart and rolled up in the canvas, the whole making a compact bundle which one man can easily carry. The pictures are packed in the boxes and two of our hospital patients carry the exhibit from school to school and set it up.

We began the school work January 13, 1908, and finished June 6. During that time we covered twenty districts, speaking in about 250 rooms and reaching over 10,000 children. Aside from the regular school lectures about thirty others were given at teachers' meetings, church societies, clubs, etc. While the number of children reached seems comparatively small we feel that the work was more thoroughly done than is

possible in large assemblies. In several schools the principals have asked the children to write what they learned from the lectures and the results have been most encouraging. Not only do they have a fair understanding of the cause and prevention of tuberculosis but they often give concrete examples of the harm done by disregarding existing health laws.

If teaching preventive medicine could be made a permanent and prominent feature in the public school work throughout the country we might reasonably expect a diminution in the death-rate, not only of tuberculosis but typhoid and other preventable diseases. The work could be carried on in conjunction with medical inspection which must eventually find its way into all our city schools. The nurse who gives the instructions (and it seems that a nurse is peculiarly fitted for this work) could receive from the doctors, if medical inspection exists, or from the teacher, a list of the children who are suspected of tuberculosis and are not under the care of a regular physician, and lists of those exposed to infection. These cases should be investigated and sent to some regular tuberculosis dispensary for examination and, if tuberculous, come under the care and supervision of a regular visiting tuberculosis nurse. Much could be accomplished by meeting the various school boards, if the school system is like that of Pittsburgh, and discussing questions of school hygiene with them. There is always need for reform along this line and sometimes a brief explanation of the value of damp sweeping and dusting will cause its instalment. Abolition of the common drinking cup is not so easily obtained, but it has been accomplished in several districts. Periodical as well as special disinfection of school rooms can be urged and the ever present question of ventilation discussed. Immediate results cannot be expected, but that results will show in ten or fifteen years we feel reasonably certain.



THE LOCAL USE OF MAGNESIUM SULPHATE IN THE TREATMENT OF ERYSIPELAS, WITH REPORT OF CASES.—The *Therapeutic Gazette* states that with this treatment, the pain and discomfort are relieved in a few hours, the temperature falls to normal rapidly, usually within the first twenty-four hours, and the patient recovers in from two to seven days. The method of application is as follows: A saturated solution of magnesium sulphate is applied on a mask consisting of fifteen to twenty pieces of ordinary gauze; this is covered by some non-absorbent material and kept wet as often as necessary. No other treatment is necessary. The report is based on observations upon thirty-five cases.